# Before the FEDERAL COMMUNICATIONS COMMISSION

Washington, DC 20590

In the Matter of	)	
	)	
Globalstar Inc. Petition for Rulemaking to Reform	)	RM-11685
the Commission's Regulatory Framework for	)	
Terrestrial Use of the Big LEO MSS Band	)	

To: The Commission

# REPLY COMMENTS OF THE CONSUMER ELECTRONICS ASSOCIATION

The Consumer Electronics Association<sup>1</sup> ("CEA") hereby provides these reply comments regarding Globalstar Inc.'s ("Globalstar") petition for rulemaking seeking greater flexibility to use its Big LEO MSS spectrum terrestrially.<sup>2</sup> Specifically, the Petition requests the removal of existing ancillary terrestrial component gating requirements, and proposes: (i) a near-term terrestrial low power service ("TLPS") over Globalstar's spectrum at 2483.5-2495 MHz and adjacent unlicensed spectrum at 2473-2483.5 MHz; and (ii) a long-term LTE-based service over Globalstar's spectrum at both 1610-1617.775 MHz and 2483.5-2495 MHz.<sup>3</sup>

As discussed below and in comments filed to date, Globalstar's TLPS proposal presents significant risk to unlicensed operations in the 2.4 GHz band and potentially threatens the economic value, consumer benefit, growth, and potential for innovation of those unlicensed

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<sup>&</sup>lt;sup>1</sup> CEA is the principal U.S. trade association of the consumer electronics and information technologies industries. CEA's more than 2,000 member companies lead the consumer electronics industry in the development, manufacturing, and distribution of audio, video, mobile electronics, communications, information technology, multimedia and accessory products, as well as related services, that are sold through consumer channels. Ranging from giant multinational corporations to specialty niche companies, CEA members cumulatively generate more than \$206 billion in annual factory sales and employ tens of thousands of people.

<sup>&</sup>lt;sup>2</sup> See Petition for Rulemaking Filed, *Public Notice*, Report No. 2971 (Nov. 30, 2012); Globalstar Inc., Petition for Rulemaking to Reform the Commission's Regulatory Framework for Terrestrial Use of the Big LEO MSS Band, RM-11685 (filed Nov. 13, 2012) ("Petition").

Id.

operations. Thus, should the Commission elect to proceed to a notice of proposed rulemaking on this matter, it should recognize that Globalstar's proposed TLPS operations could harm unlicensed operations in the 2.4 GHz spectrum band and take appropriate steps to protect this unlicensed spectrum as an important platform for innovative technologies and consumer products.

### DISCUSSION

CEA notes at the outset that the record before the Commission provides scant, if any, support for Globalstar's Petition. With the exception of Globalstar, the stakeholders simply do not appear to be eager for the Commission to proceed to a notice of proposed rulemaking in this matter. Iridium opposed the Petition outright, while Clearwire demonstrated that the record is insufficient to commence a rulemaking. The remaining commenters identified numerous, specific concerns raised by the Petition and exposed the Petition's lack of information on key issues. As these commenters point out, the Commission should proceed in this matter if and only if it addresses these concerns and omissions.

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See Opposition of Iridium Constellation LLC, RM-11685 (filed Jan. 14, 2013) ("Iridium Opposition"); Comments of Clearwire Corporation, RM-11685 (filed Jan. 14, 2013). While Iridium formally urged the Commission to reject Globalstar's ATC and long-term proposals, it took no position on Globalstar's TLPS proposal. Iridium Opposition at 23-26.

See Comments of EIBASS to the Globalstar Petition for Rulemaking, RM-11685, at 9 (filed Jan. 14, 2013) (arguing that Globalstar should provide additional information and address re-farming the 2.5 GHz TV broadcast auxiliary service band); Comments of the U.S. GPS Industry Council, RM-11685, at 1-2 (filed Jan. 14, 2013) (arguing that any long-term broadband proposal must protect the installed GPS user base); Comments of the Wireless Internet Service Providers Association, RM-11685, at 3 (filed Jan. 14, 2013) (generally supporting assignment of more spectrum for fixed broadband, but raising concerns that Globalstar's TLPS proposal may cause harmful interference to Wi-Fi operations in the 2.4 GHz band); Comments of the Association of Home Appliance Manufacturers, RM-11685 (filed Jan. 14, 2013) (raising potential interference and other concerns in the 2.4 GHz band); Comments of the Mobile Satellite Users Association, RM-11685 (filed Jan. 14, 2013) (urging the Commission to ensure that any terrestrial services in the Big LEO band not cause interference to existing and planned

Of particular note, both the Wi-Fi Alliance (the "Alliance") and the Bluetooth Special Interest Group ("BSIG") raised interference and other concerns regarding Globalstar's TLPS proposal and its potential effect on unlicensed operations in the 2.4 GHz band. These concerns matter to CEA, its members, and the public, all of whom have a substantial interest in unlicensed spectrum. Unlicensed spectrum has emerged as an important vector of innovation, serving as a platform for innovative technologies being implemented in numerous consumer electronics products, including Wi-Fi, Bluetooth, ZigBee, Z-Wave, and wireless HDMI connections. CEA sales figures estimate that over 165 million Wi-Fi-enabled devices – laptop computers, music players, phones, tablets, and more – were sold in 2012 and over 271 million such devices are expected to be sold in 2016. Unlicensed spectrum has opened new frontiers of communications, including high-speed Internet, for consumers and Wi-Fi is rapidly becoming a key method of

satellite services, and to condition any terrestrial authorizations upon continued provision of "substantial" satellite services).

See Comments of the Wi-Fi Alliance, RM-11685 (filed Jan. 14, 2013) ("Alliance Comments"); Comments of the Bluetooth Special Interest Group, RM-11685 (filed Jan. 14, 2013) ("BSIG Comments").

CEA, U.S. Consumer Electronics Sales & Forecasts (Jan. 2013).

<sup>&</sup>lt;sup>8</sup> *Id.* 

<sup>&</sup>lt;sup>9</sup> See Comments of the Consumer Electronics Association, GN Docket Nos. 09-47, 09-51, and 09-137, at 5 (filed Oct. 23, 2009).

connectivity across the globe. 10 Wireless providers today use Wi-Fi as a fundamental tool for offloading much of their traffic. 11

The potential impact on unlicensed operations from Globalstar's proposal to use 2473-2483.5 MHz for TLPS is, thus, of significant concern. This spectrum is extremely important to Wi-Fi and Bluetooth technologies, and Globalstar's proposal risks harming these highly valuable and innovative operations. Specifically, the 2473-2483.5 MHz spectrum currently provides a *de facto* guardband for Wi-Fi operations. Globalstar's proposed use of that spectrum would eliminate that guardband, potentially resulting in the loss of Wi-Fi Channel 11. Because there are only three non-overlapping channels used broadly in the industry (Channels 1, 6 and 11), the loss of Channel 11 would represent a significant loss of available spectrum.

Globalstar's TLPS could also create new filtering issues for Wi-Fi device manufacturers and potentially require them to change filters in order to address new out-of-band-emissions from Globalstar's operations. This would raise the cost of new devices and affect the hundreds of millions of unlicensed devices already in consumers' hands. <sup>13</sup>

Strategy Analytics estimates that by 2016, 800 million households or around 45% globally will use a home Wi-Fi network. Richard Thanki, *The Economic Significance of License-Exempt Spectrum to the Future of the Internet*, June 2012, at 32-33 (citing Andrew Burger, *Report: Wi-Fi Households to Approach 800 million by 2016*, Telecompetitor (Apr. 5, 2012), http://www.telecompetitor.com/report-wi-fi-households-to-approach-800-million-by-2016/.), http://www.wirelessinnovationalliance.org/index.cfm?objectid=DC8708C0-D1D2-11E1-96E9000C296BA163.

See Lynnette Luna, Devicescape: Average data offload to Wi-Fi is 40 percent, FierceBroadband Wireless (June 19, 2011), http://www.fiercebroadbandwireless.com/story/devicescape-average-data-offload-wi-fi-40-percent/2011-06-19. See also News Release, FCC, Statement of Julius Genachowski on House Passage of Voluntary Incentive Auction Legislation, at 2 (rel. Dec. 13, 2011) ("Wireless providers rely on Wi-Fi to 'offload' nearly 40 percent of traffic from their networks"), http://hraunfoss.fcc.gov/edocs\_public/attachmatch/DOC-311528A1.pdf.

See Alliance Comments at 4; BSIG Comments 2-3.

See Alliance Comments at 3-4.

Similarly, Globalstar's TLPS proposal would bar Bluetooth manufacturers from accessing spectrum above 2473 MHz, creating congestion, reducing the spectrum available for Bluetooth and future technologies in the 2.4 GHz band, and degrading the end-user's overall experience. Globalstar's TLPS proposal would also affect an already-installed base of millions of wireless devices that utilize unlicensed spectrum. The vast majority of these unlicensed devices lack the ability to receive firmware upgrades to enable compliant operation in an additional band, and, even where such an upgrade can be done, the FCC's equipment approval rules may prohibit such a change of device functionality. <sup>15</sup>

Futhermore, the 2.4 GHz spectrum is globally harmonized for unlicensed use. Licensing such previously harmonized spectrum to a single firm, as Globalstar proposes, would be very disruptive and would reduce the spectrum available for future innovation. Any benefits that accrue to Globalstar will pale against the harm to U.S.-based manufacturers and consumers, and would establish an unfavorable precedent of impairing well established unlicensed uses and users to the benefit of a single private party.

### **CONCLUSION**

CEA appreciates the opportunity to express its concerns regarding Globalstar's TLPS proposal and its potential impact on unlicensed operations in the 2.4 GHz band. CEA is confident that the Commission will recognize and give full weight to the importance of unlicensed services to the many millions of businesses and individual consumers who rely on Wi-Fi, Bluetooth, and devices operating on unlicensed spectrum, and consider the impact on

See id. at 4-5; see also BSIG Comments at 2-3.

<sup>15</sup> BSIG Comments at 3.

See Alliance Comments at 5; BSIG Comments at 3-4.

those consumers and manufacturers that create and support today's and tomorrow's innovative wireless devices. In the event the Commission elects to proceed to a notice of proposed rulemaking in this matter, CEA urges the Commission to ensure that the issues raised herein and in the comments by the Alliance and BSIG are carefully and fully considered and resolved.

Respectfully submitted,

# **CONSUMER ELECTRONICS ASSOCIATION**

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